REMARKS

This Amendment is in response to the Office Action mailed . Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Specification

1. The Examiner objects to the specification as the application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). Applicant has provided an abstract on a separate sheet herewith as required.

2. The Examiner notes that the specification states on page 4, paragraph [0016], that "Fig. 2 is a plan view of the distal end of the anchoring element". However, Figure 2 appears to be a view of the proximal end of the anchoring element. Applicant has amended paragraph [0016] to replace "distal" with --proximal--.

3. The Examiner notes that the specification states on page 7, paragraph [0053], that "the proximal end is the end to the upper right" with regards to Figure 1, however, Figure 1 appears to show the proximal end to the upper left, and distal end to the lower right. Applicant has amended paragraph [0053] to replace "upper right" with --upper left --.

Applicant respectfully requests that the Examiner withdraw the objection to the specification.

Double Patenting

5. The Examiner rejects claims 1-20 under the judicially created doctrine of the obviousness-type double patenting of the claim of copending Application No. 11/035,266. The Examiner asserts that although the conflicting claims are not identical, they are not patentably

distinct from each other. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant respectfully requests the provisional non-statutory obviousness-type double patenting rejection be held in abeyance until subject matter is allowed in this case because it is premature to conclude that claims that may eventually be allowed in this case will not be patentably distinct from claims that may eventually be allowed in copending Application No. 11/035,266.

Rejection Under 35 U.S.C. § 102

7. The Examiner rejects claims 1-3, 11-13 and 20 under 35 U.S.C. § 102(b) as being anticipated by Niznick (US Patent 5,622,500).

As to claim 1, applicant has amended the claim to include the elements originally presented in claim 4 and traverses the rejection by traversing the rejection applied to claim 4 as discussed below.

As to claim 12, applicant has amended the claim to include the elements originally presented in claim 15 and traverses the rejection by traversing the rejection applied to claim 15 as discussed below.

As to claim 20, the Examiner asserts that Niznick anticipates the claimed invention by disclosing each and every element of the claim. Applicant respectfully disagrees. Claim 20 claims a method for placing an anchoring element in a molar socket that includes interradicular bone. The Examiner rejects claim 20 along with claims 1 and 12 which claim an anchoring element by providing a rationale for how Niznick might read on the claimed anchoring element. However, this does not disclose any of the elements of the method of claim 20. Applicant is unable to find any disclosure by Niznick of preparation of a dental socket to receive an anchoring

element, much less a disclosure of preparation of a molar socket with the accompanying preparation of interradicular bone as claimed.

As to claims 2 and 13, applicant relies on the patentability of the claims from which these claims depend to traverse the rejection without prejudice to any further basis for patentability of these claims based on the additional elements recited.

As to claim 3, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

As to claim 11, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

Applicant respectfully requests that the Examiner withdraw the rejection of claims 1-3, 11-13 and 20 under 35 U.S.C. § 102(b) as being anticipated by Niznick (US Patent 5,622,500).

9. The Examiner rejects claims 1-3, 6-9 and 11 -20 under 35 U.S.C. 102(e) as being anticipated by Lazarof (US Patent Application Publication 2005/10042574).

As to claim 1, applicant has amended the claim to include the elements originally presented in claim 4 and traverses the rejection by traversing the rejection applied to claim 4 as discussed below.

As to claim 6, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

As to claim 12, the Examiner asserts that Lazarof discloses an anchoring element (Figure 2) for use in bone comprising a first surface with exterior threads (12), a distal end (rightmost

portion of Figure 2) and a proximal end (leftmost portion of Figure 2). Applicant understands the Examiner to consider the circumferential wall portion of the inner passage shown extending from the distal end of the implant to disclose the third means for bearing against a first surface of the interradicular bone that generally faces the outer wall of the molar socket. Applicant respectfully disagrees. The interradicular bone is a particular feature of a molar socket that is shown by reference numeral 510 in Figure 16 of the specification. As described in paragraph [0079] of the specification, the interradicular bone 510 separated the roots of the extracted molar. Lazarof discloses an anchoring element with a tubular body 3 that is expanded by drawing an expansion nut 4 upwardly into the inner passage that the Examiner reads on the third means. The expansion nut prevents the inner passage disclosed by Lazarof from providing the claimed function of the third means, "bearing against a first surface of the interradicular bone that generally faces the outer wall of the molar socket."

As to claim 20, the Examiner asserts that Lazarof anticipates the claimed invention by disclosing each and every element of the claim. Applicant respectfully disagrees. Claim 20 claims a method for placing an anchoring element in a molar socket that includes interradicular bone. The Examiner rejects claim 20 along with claims 1 and 12 which claim an anchoring element by providing a rationale for how Lazarof might read on the claimed anchoring element. However, this does not disclose any of the elements of the method of claim 20. Applicant is unable to find any disclosure by Lazarof of preparation of a dental socket to receive an anchoring element, much less a disclosure of preparation of a molar socket with the accompanying preparation of interradicular bone as claimed.

As to claims 2 and 13, applicant relies on the patentability of the claims from which these claims depend to traverse the rejection without prejudice to any further basis for patentability of these claims based on the additional elements recited.

As to claim 3, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

As to claim 7, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

As to claim 8, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

As to claim 9 applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

As to claim 11, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

As to claim 14, the Examiner asserts that the means (i.e. the first and second surfaces as described above) for bearing against a first surface of bone is capable of compressing said bone when it bears against it. Applicant respectfully disagrees that the first and second surfaces disclose the third means as claimed. The claim provides that the third means has the further

function of compressing the interradicular bone. Applicant fails to understand how any part of the anchoring element disclosed by Lazarof would function to compress the interradicular bone.

As to claim 15 as originally presented, the Examiner asserts that the means (i.e. the first and second surfaces as described above) for bearing against a first surface of bone is threaded for cutting. Applicant respectfully disagrees that the first and second surfaces disclose the third means as claimed. Claim 12 as amended provides that the third means has the further function of threadedly engaging the first surface of the interradicular bone. Nothing in Lazarof discloses the surface that the Examiner reads on the third means as threaded.

Applicant has amended claim 15 to provide the further element of the first and third means being for advancing the anchoring element at the same rate as the anchoring element is rotated to embed the anchoring element into bone as disclosed in the specification as filed in paragraph [0061]. Applicant respectfully submits that claim 15 as amended is distinguished from Eibes because Eibes does not disclose an internal thread that will advance the disclosed bushing at the same rate as the external threads.

As to claim 16, the Examiner asserts that the means (i.e. the first and second surfaces as described above) for bearing against a first surface of bone is threaded for cutting. Applicant respectfully disagrees that the first and second surfaces disclose the third means as claimed. The claim provides that the third means has the further function of threadedly engaging the first surface of the interradicular bone. Nothing in Lazarof discloses the surface that the Examiner reads on the third means as threaded.

As to claim 17, the Examiner asserts that the anchoring element comprises a fifth means (circumferential threaded sides of shank 7) that can bear against a side wall of a prepared hole. Applicant respectfully disagrees. Lazaroff discloses that an expansion nut 4 is threaded onto the

bottom end of the threaded shank 7 [0030]. The expansion nut would prevent the threaded shank from "bearing against a side wall of a hole prepared in the interradicular bone" as claimed.

As to claim 18, the Examiner asserts that the anchoring element comprises a fifth means (circumferential threaded sides of shank 7) that can compress bone. Applicant respectfully disagrees. Lazaroff discloses that an expansion nut 4 is threaded onto the bottom end of the threaded shank 7 [0030]. The expansion nut would prevent the threaded shank from "compressing the interradicular bone" as claimed.

As to claim 19, the Examiner asserts that the anchoring element comprises a fifth means (circumferential threaded sides of shank 7) that can threadingly engage the side of the hole in the bone. Applicant respectfully disagrees. Lazaroff discloses that an expansion nut 4 is threaded onto the bottom end of the threaded shank 7 [0030]. The expansion nut would prevent the threaded shank from "threadedly engaging the side wall of the hole in the interradicular bone" as claimed.

Applicant respectfully requests that the Examiner withdraw the rejection of claims 1-3, 6-9 and 11-20 under 35 U.S.C. § 102(b) as being anticipated by Lazarof (US Patent Application Publication 2005/10042574).

Rejection Under 35 U.S.C. § 103

13. The Examiner rejects claims 4 and 5 under 35 U.S.C. § 103(a) as being unpatentable over Niznick (5,622,500) in view of Eibes, et al. (3,866,510).

As to claim 4, the Examiner admits that Niznick fails to show the third surface includes an internal thread. The Examiner asserts that Eibes, however, discloses a cylindrical bushing (Figure 6) with identical external and internal threads (B) and concludes that it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to add threads

to the third surface to match those of the first surface in order to retain the self-tapping property of the device as taught by Eibes.

Applicant has amended claim 1 to include the elements originally presented in claim 4 and now traverses the rejection of claim 1 by traversing the rejection applied to claim 4.

Applicant respectfully disagrees that Eibes teaches an internal thread having the same pitch as the external thread of the disclosed self-tapping threaded bushing. Eibes discloses a novel method of forming the external threads of a self-tapping threaded bushing to provide a low entry torque and a high return torque. Col. 1, lines 29-31. The only mention of the internal, female thread, is the disclosure that it is furnished in a known manner. Col. 2, lines 64-67. Known threaded bushings differ from the claimed threaded arrangement of the inventive anchoring element because the inventive internal thread has the pitch of the external thread. A threaded bushing of the type disclosed by Eibes has an external thread of a coarser pitch than the internal thread. The external pitch is a coarse pitch first because it has a larger diameter than the internal thread and standard threads are coarser as the diameter increases. Secondly, the purpose of a threaded bushing is to provide a threaded hole in a soft work piece and coarser pitches are used to provide a stronger connection to the soft work piece. A person having ordinary skill in the art would not expect a self-tapping threaded bushing to provide an internal thread having the pitch of the external thread as claimed for the inventive anchoring element.

Applicant further disagrees that a person having ordinary skill in the art would have any motivation to combine the self-tapping threaded bushing disclosed by Eibes with the dental implant disclosed by Niznick. The dental implant disclosed by Niznick already provides external and internal threads as shown in Figure 1. At best, a person having ordinary skill in the art might try replacing the external thread disclosed by Eibes on the dental implant disclosed by Niznick.

However, this combination does not provide the claimed invention. Since Eibes discloses nothing about the internal threads, there is no motivation to modify the internal threads of the dental implant disclosed by Niznick, which are at the proximal end rather than at the distal end as claimed.

Applicant has amended claim 4 to provide the further element of the internal thread and the first external thread being such that both threads will advance the anchoring element at the same rate as the anchoring element is rotated to embed the anchoring element into bone as disclosed in the specification as filed in paragraph [0061]. Applicant respectfully submits that claim 4 as amended is distinguished from Eibes because Eibes does not disclose an internal thread that will advance the disclosed bushing at the same rate as the external threads.

As to claim 5, the Examiner admits that Niznick fails to show the third surface includes an internal thread. The Examiner asserts that Eibes, however, discloses a cylindrical bushing (Figure 6) with identical external and internal threads (B) and concludes that it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to add threads to the third surface to match those of the first surface in order to retain the self-tapping property of the device as taught by Eibes.

Applicant respectfully disagrees. Eibes discloses a novel method of forming the external threads of a self-tapping threaded bushing to provide a low entry torque and a high return torque. Col. 1, lines 29-31. The only mention of the internal, female thread, is the disclosure that it is furnished in a known manner. Col. 2, lines 64-67. Nothing in Eibes discloses that the internal threads are self-tapping. It would be surprising to find self-tapping internal threads in a threaded bushing because the purpose of the device is to receive a male threaded fastener and not to cut a thread into an unthreaded fastener.

Applicant respectfully requests that the Examiner withdraw the rejection of claims 4 and 5 under 35 U.S.C. § 103(a) as being unpatentable over Niznick (5,622,500) in view of Eibes, et al. (3,866,510).

16. The Examiner rejects claims 4-5 and 10 under 35 U.S.C. § 103(a) as being unpatentable over Lazarof (2005/0042574) in view of Eibes, et al. (3,866,510).

17. The Examiner asserts that regarding claims 4-5 and 10, Lazarof discloses the anchoring element described above, but fails to show the third surface including an internal thread.

18. The Examiner asserts that Eibes et al, however, discloses a cylindrical bushing (Fig. 6) with identical external and internal threads (B). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lazarofs anchoring element to include internal threads to the third surface to match those of the first surface in order to retain the self-tapping property of the device as taught by Eibes.

Additionally, it is important for all the threaded surfaces to have approximately the same pitch so as to maintain a proper self-tapping configuration.

As to claim 4, the Examiner admits that Lazarof fails to show the third surface includes an internal thread. The Examiner asserts that Eibes, however, discloses a cylindrical bushing (Figure 6) with identical external and internal threads (B) and concludes that it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to add threads to the third surface to match those of the first surface in order to retain the self-tapping property of the device as taught by Eibes.

Applicant has amended claim 1 to include the elements originally presented in claim 4 and now traverses the rejection of claim 1 by traversing the rejection applied to claim 4.

Applicant respectfully disagrees that Eibes teaches an internal thread having the same pitch as the external thread of the disclosed self-tapping threaded bushing. Eibes discloses a novel method of forming the external threads of a self-tapping threaded bushing to provide a low entry torque and a high return torque. Col. 1, lines 29-31. The only mention of the internal, female thread, is the disclosure that it is furnished in a known manner. Col. 2, lines 64-67. Known threaded bushings differ from the claimed threaded arrangement of the inventive anchoring element because the inventive internal thread has the pitch of the external thread. A threaded bushing of the type disclosed by Eibes has an external thread of a coarser pitch than the internal thread. The external pitch is a coarse pitch first because it has a larger diameter than the internal thread and standard threads are coarser as the diameter increases. Secondly, the purpose of a threaded bushing is to provide a threaded hole in a soft work piece and coarser pitches are used to provide a stronger connection to the soft work piece. A person having ordinary skill in the art would not expect a self-tapping threaded bushing to provide an internal thread having the pitch of the external thread as claimed for the inventive anchoring element.

Applicant further disagrees that a person having ordinary skill in the art would have any motivation to combine the self-tapping threaded bushing disclosed by Eibes with the dental implant disclosed by Lazarof. The dental implant disclosed by Lazarof already provides external and internal threads as shown in Figure 2. At best, a person having ordinary skill in the art might try replacing the external thread disclosed by Eibes on the dental implant disclosed by Lazarof. However, this combination does not provide the claimed invention. Since Eibes discloses nothing about the internal threads, there is no motivation to modify the internal threads of the dental implant disclosed by Lazarof, which are at the proximal end rather than at the distal end as claimed.

Applicant has amended claim 4 to provide the further element of the internal thread and the first external thread being such that both threads will advance the anchoring element at the same rate as the anchoring element is rotated to embed the anchoring element into bone as disclosed in the specification as filed in paragraph [0061]. Applicant respectfully submits that claim 4 as amended is distinguished from Eibes because Eibes does not disclose an internal thread that will advance the disclosed bushing at the same rate as the external threads.

As to claim 5, the Examiner admits that Lazarof fails to show the third surface includes an internal thread. The Examiner asserts that Eibes, however, discloses a cylindrical bushing (Figure 6) with identical external and internal threads (B) and concludes that it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to add threads to the third surface to match those of the first surface in order to retain the self-tapping property of the device as taught by Eibes.

Applicant respectfully disagrees. Eibes discloses a novel method of forming the external threads of a self-tapping threaded bushing to provide a low entry torque and a high return torque. Col. 1, lines 29-31. The only mention of the internal, female thread, is the disclosure that it is furnished in a known manner. Col. 2, lines 64-67. Nothing in Eibes discloses that the internal threads are self-tapping. It would be surprising to find self-tapping internal threads in a threaded bushing because the purpose of the device is to receive a male threaded fastener and not to cut a thread into an unthreaded fastener.

As to claim 10, the Examiner asserts that it is important for all the threaded surfaces to have approximately the same pitch so as to maintain a proper self-tapping configuration. Applicant understands this to be an assertion that the thread disclosed by Lazarof on the threaded

shank 7 has the same pitch as the threads 24 on the exterior of the body. Applicant respectfully disagrees.

The purpose of the protrusions 24 on the outside surface of the tubular body is to carve into the bone of the patient's jaw [0025]. The purpose of the threaded shank 7 is to engage the expansion nut 4 and draw the nut into the skirt portion 2 to expand the skirt [0026]. One of ordinary skill in the art would understand that bone can be a relatively soft material and that coarse threads are appropriate to engage soft bone. One of ordinary skill in the art would also understand that dental implants are generally made of titanium and that the threads on mating metal parts are generally fine threads, not as coarse at the threads used to engage bone. Further, threads on the larger diameter of the tubular body would be coarser than the threads on the smaller diameter of the threaded shank even if they were intended for engaging the same materials. As would be expected, Figure 2 clearly shows that the threads on the tubular body are coarser than the threads on the threaded shank. Also, there is no need for the threads on the tubular body to have the same pitch as the threads on the threaded shank because they engage bodies that are separate from one another. This is entirely unlike the claimed fifth surface that includes a second external thread that must have the pitch of the first external thread because both threads engage portions of the bone of the patient's jaw and must therefore advance at the same rate.

Applicant respectfully requests that the Examiner withdraw the rejection of claims 4-5 and 10 under 35 U.S.C. § 103(a) as being unpatentable over Lazarof (2005/0042574) in view of Eibes, et al. (3,866,510).

No Disclaimers or Disavowals

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, the Applicants are not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. The Applicants reserve the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that the Applicants have made any disclaimers or disavowals of any subject matter supported by the present application.

Conclusion

Applicant reserves all rights with respect to the applicability of the doctrine of equivalents. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,
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